

Chemical Cleaning and Descaling Subcommittee-Meeting Highlights
Washington Navy Yard
1333 Isaac Hull Avenue, SE
Washington DC 20376
Conference Room 3W-2001
Meeting #31
29 October 2003

INTRODUCTION

Chairmen Mr. Rich Kurz called the meeting to order at 1300 EDT. Eight people either called in or were present. See [Attendee List](#) below.

PURPOSE

Update all members on the current status of Chemical Cleanings in the fleet. This status includes a status on current and planned ship cleaning, information on the revised Universal Industrial Process Instruction (UIPI), approving a Commercial Item Description (CID), discussing effluent waste concerns, a status on an effluent waste treatment technology proposal, and a status on the Titanium/Inconel Study.

REVIEW OF EXPERIENCE: SUBMARINE AND SURFACE SHIP CLEANING

The following is a list of units that have been cleaned on the USS ABRAHAM LINCOLN, CVN-72 since the last subcommittee meeting:

- 2 Main Condensers
- 2 SSTG Condensers
- 2 CPTG Condensers
- 2 Aux Gland Exhaust Condensers
- 2 Distilling Unit After Condensers
- 4 Special Frequency Motor Generators
- 5 Air Conditioning Plant Condensers (crew on site)

Some Lessons Learned by PSNS with Safe-D-Scale:

- Prefer using Safe-D-Scale vice Rydlyme because it appears to remove the flush debris better.
- At end of cleaning the acid strength is still good so they are reusing solution. To date it was estimated PSNS reused 10 K to 15 K gallons. This practice reduces the amount of effluent waste. An Acid titration test performed to verify the acidity level. The test results also indicate how much new product has to be added to bring flush solution back to full strength. Ralph Wood commented that the solution can only reuse so many times
- Multiple units are flushed in series using the same flushing solution. This also reduces the amount of waste per component. Might consider revising the UIPI to include this practice.
- Have had success with smaller pumps. But for large units (main condensers) had to add manual rinse down-blow down step for each tube. Larger units have access covers that are easily removed. May have to revise UIPI to accommodate this contingency.

The USS Topeka (SSN 754) is scheduled to have its ASW system flushed while in dry dock (crew on site). However, radiological contaminates may be a problem that must be resolved before flushing. These contaminates will cause the disposal costs to skyrocket.

Pearl Harbor NSY is building an attachment device that will allow the flush rig to be mounted outside of the sea screen. Do not have to remove sea screen.

It was also noted during the discussion that some distilling units have both Cu-Ni and Titanium pipes.

STATUS OF UNIFORM INDUSTRIAL PROCESS INSTRUCTION (UIPI) REVISION

Received funding from NAVSEA 04 to complete this revision. Two new drawings have been added. Have now added surface ships, and installation notes, and will add new flushing techniques. Vendors will not be included. The revision schedule is to incorporate ideas by November 7, forward a draft submission by November 14 to NAVSEA for comment, and issue an approved revision by early January 2004.

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STATUS OF CID's

The goal is to get CID approved by end of CY. Still need comments from SEA 08. Ted Lemieux thinks latest revision covers all of comments or questions that could be answered. See action Items below

LIST OF CHEMICALS NOW APPROVED FOR USE

Completed rerun of HERC activation and passivation test yesterday. Preliminary results looks like it passed. Need HERC to send information Navy Environmental Health Center (NEHC) for approval. Unitor is also being evaluated as another possible product.

Qualified Products List (QPL)- Ralph Wood is still looking to where the QPL should go. He is reviewing references provided by SEA 04 on to how to handle QPL's. QPL may not be the way to go. May be able to add addendum page on CID.

He is also working on a letter with list of approved products and will send to Ben for subcommittee distribution.

PORTSMOUTH NAVAL SHIPYARD CONCERNS ABOUT THE WASTE TREATMENT OF SAFE-D-SCALE

A new treatment plant is being built at PSNS. One of the waste streams it was designed to treat was the spent cooling system cleaning solutions. Ben Zlateff will check with Walter Hunter about other fixed units being built at other shipyards or naval stations.

CHEMICAL CLEANING WASTE TREATMENT TECHNOLOGY

The proposal written by Steve Verosto, NSWC CD and Brian Hughart, NFESC for the Navy Pollution Abatement Ashore BAM-06 process was discussed. This proposal received the highest NAVSEA ranking. Two new bits of information need to be considered by this proposal. Paul Stirling found that the flush solution could be reused. In addition, a new treatment plant is being built at Puget Sound NSY. See comments in the previous section. The question was asked if these impact the cost effectiveness of developing the treatment technology?

Ben Zlateff took an action to send a copy of Treatment System proposal to SC members.

STATUS OF TITANIUM/INCONEL STUDY

No further progress on this study. SEA 08 still needs to approve. Paul Stirling commented that several units are awaiting cleaning. He took action to send e-mail to Rich on what Titanium / Inconel units need to be done.

OTHER NEW BUSINESS

The next NAVSEA P2 WG meeting will be held 12/9-11/03 in Williamsburg, VA. Chairman Rich Kurz will attend and present a status on the subcommittee efforts. A draft presentation will be available for review by 11/15/03. Information on the status of CID and UIPI will be obtained at that time and will be included.

ACTION ITEMS

See [Action](#) Item Status below

ADJOURN

This meeting was adjourned at 1410 EST. The next meeting is scheduled for 14 January 2004 at 1300 EST at a location to be determined.

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OPEN ACTION ITEMS

CCD 8-19-03-1: Mr. Rich Kurz to set up a visit for the January 2004 flushing at NNSY for himself and Mr. Larry Silkaitis.

CCD 10-29-03 2: Members review and provide comment on CID to Tom Armstrong, SEA 05Z22, ArmstrongTH@navsea.navy.mil by 14 November 2003

CCD 10-29-03 5: Paul Stirling- Send e-mail to Rich Kurz on what Titanium / Inconel units need to be done. 11/7/03

CCD 10-29-03 6: Ralph Wood- Send out parameters governing effluent reuse to Paul Stirling.

CCD 10-29-03 7: Ben Zlateff - Check with Walter Hunter, PSNS about other fixed units being built at other shipyards or naval stations.

COMPLETE ACTION ITEMS

CCD 8-19-03 2: LTJG Pentzien will contract Mr. Larry Dutton from NAVSEA 04X to help request \$16K to finish UIPI Rev B.
-Complete 9/15/03

CD 8-19-03 3: Mr. Paul Stirling to send a summary to LTJG Pentzien to assist with this effort.
-Completed 8/20/03

CCD 8-19-03 4: Rich Kurz, John Wegand and Larry Silkaitis. Call Paul Robetor, Bechtel Plant Machinery Incorporated, on Friday at 1030 to obtain more information on status of research on Titanium cleaning efforts. Post meeting note:
-Complete 8/25/03.

CCD 10-29-03-1: Rich Kurz - Send copy of CID to Ben and forward to SC. 10/31/03
– Complete 10/31/03

CCD 10-29-03 3: Paul Stirling- Send Ben Zlateff the list of units cleaned on the Lincoln 10/31/03
- Complete 10/31/03

CCD 10-29-03 4: Ben Zlateff- Send Copy of Treatment System proposal to SC members 10/31/03
– Complete 10/31/03

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* Attended or called in for the meeting